

deposits are surmounted by alternate layers of clay and marl, blue or yellow—the well-known *Fuller's Earth*, which is so called from its use in the manufacture of woollen fabrics to extract the grease from the wool. The second series of the Lower Oolite, which attains a thickness of from 150 to 200 feet on the coast of Normandy, and is well developed in the neighbourhood of Caen and in the Jura, has been divided, in Britain, into four formations, in an ascending scale:—

1. The *Great* or *Bath Oolite*, which consists principally of a very characteristic, fine-grained, white, soft, and well-developed oolitic limestone, at Bath, and also at Caen in Normandy. At the base of the Great Oolite the Stonesfield beds occur, in which were found the bones of the marsupial Mammals, to which we have already alluded; and along with them bones of Reptiles, principally Pterodactyles, together with some finely-preserved fossil plants, fruits, and insects.

2. *Bradford Clay*, which is a bluish marl, containing many fine Encrinites (commonly called stone-lilies), but which had only a local existence, appearing to be almost entirely confined to this formation. "In this case, however," says Lyell, "it appears that the solid upper surface of the 'Great Oolite' had supported, for a time, a thick submarine forest of these beautiful Zoophytes, until the clear and still water was invaded with a current charged with mud, which threw down the stone-lilies, and broke most of their stems short off near the point of attachment. The stumps still remain in their original position." See Fig. 1, PLATE XIX., p. 261. (Bradford, or Pear, Encrinite.)

3. *Forest Marble*, which consists of an argillaceous shelly limestone, abounding in marine fossils, and sandy and quartzose marls, is quarried in the forest of Wichwood, in Wiltshire, and in the counties of Dorset, Wilts, and Somerset.

4. The *Cornbrash* (wheat-lands) consists of beds of rubbly cream-coloured limestone, which forms a soil particularly favourable to the cultivation of cereals; hence its name.†

The Lower Oolite ranges across the greater part of England, but "attains its maximum development near Cheltenham, where it can be subdivided, at least, into three parts. Passing north, the two lower divisions, each more or less characterised by its own fossils, disappear, and the Ragstone north-east of Cheltenham lies directly

\* "Elements of Geology," p. 399.

† See Bristow in Descriptive Catalogue of Rocks, in *Mus. Pract. Geol.*, p. 134.